

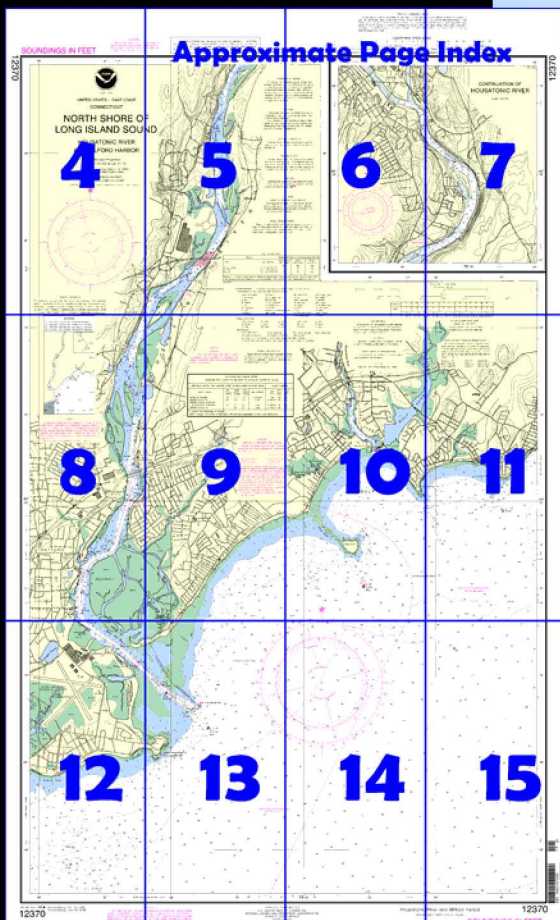
# BookletChart<sup>TM</sup>

## North Shore of Long Island Sound - Housatonic R and Milford Hbr (NOAA Chart 12370)



A reduced scale NOAA nautical chart for small boaters. When possible, use the full size NOAA chart for navigation.

- ☒ Complete, reduced scale nautical chart
- ☒ Print at home for free
- ☒ Convenient size
- ☒ Up to date with all Notices to Mariners
- ☒ United States Coast Pilot excerpts
- ☒ Compiled by NOAA, the nation's chartmaker.



*Home Edition (not for sale)*





### What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

### What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

### Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.



### [Coast Pilot 2, Chapter 9 excerpts]

(328) **The Gulf**, a bight between Welches Point and Charles Island, about 6.5 miles westward of New Haven Harbor entrance, affords anchorage in 6 to 15 feet and is sheltered in all but southerly and southeasterly winds. The entrance is clear. The shoaling is gradual, and soundings are the best guide on the northwest side of the bight; the western side of Welches Point and the reefs around Charles Island extending to the mainland should be approached with caution, as the

shoaling is abrupt.

(329) **Milford Harbor**, comprising the lower portion of the **Wepawaug River**, is entered at the mouth of the river between two jetties at the head of The Gulf. The westerly jetty extends southward from **Burns Point**, and the easterly jetty is marked by Milford Harbor Light 10. The harbor

is used chiefly for recreational boating, and occasionally for the receipt of shellfish and fish.

(330) A dredged channel leads from The Gulf through the jettied entrance to a point about 400 feet above the town wharf, 0.6 mile above Burns Point. In November-December 1991, the controlling depths were 6½ feet (8 feet at midchannel) in the entrance channel and 8 feet in the anchorage basin along the west side of the channel except for lesser depths to 6 feet along the western edge. The channel is marked by a light and lighted and unlighted buoys.

(331) Milford Harbor has several small-craft facilities.

(332) A 5 mph **speed limit** is enforced in the harbor.

(334) Between Charles Island and **Stratford Point**, about 3 miles southwestward, several summer resorts are along the shore and the Housatonic River empties into Long Island Sound just above the point. The shoals which extend southward from Stratford Point toward Stratford Shoal Light consist of narrow ridges of hard sand with deeper water between, and have oyster beds marked with stakes. Depths of 12 feet or less extend 1 mile offshore.

(335) **Stratford Point Light** (41°09.1'N., 73°06.2'W.), 52 feet above the water, is shown from a white conical tower, with brown band midway of its height, from the southerly part of the point.

(336) **Housatonic River** rises in the Berkshire Hills of western Massachusetts and Connecticut, and empties into Long Island Sound about 10 miles southwestward of the New Haven Harbor entrance. The river is joined by the nonnavigable **Naugatuck River** in the vicinity of Derby, Conn. Housatonic River is navigable to a point about 1 mile above Shelton, Conn., where it is closed by a power dam. The head of navigation for all practical purposes is at the towns of Derby and Shelton, 11.5 miles above the entrance. Small vessels can anchor in the river abreast of Stratford, where the channel has an available width of about 500 feet. Navigation above Devon is limited to recreational boating.

(338) A Federal project provides for an 18-foot dredged channel from Long Island Sound between the breakwater on the east and Stratford Point on the west upriver for about 4.3 miles to the lower end of Culver Bar. (See Notice to Mariners and the latest editions of the charts for controlling depths.) Above the lower end of Culver Bar, the river channel extends through several dredged sections across river bars to the towns of Derby and Shelton about 11.5 miles above the river entrance. In November 1999-January 2000, the controlling depths were 3.1 feet in the buoyed channel from the lower end of Culver Bar and across Mill Bar to the naturally deep river channel, thence 5.2 feet in the dredged channels across lower Oronoque Bar and 2.7 feet across upper Oronoque Bar, thence 4.2 feet across Camp Meeting Bar, thence 6.3 feet across Drews Bar except for shoaling to 3.5 feet in the lower part of the dredged channel along the left edge, thence 7 feet across Mouthrops Bar and Hidelom Rock Bar, thence 7 feet in the left outside quarter of the dredged channel across Twomile Island Bar with shoaling to bare in the remainder of the channel, thence 7 feet in the dredged channel near Sow and Pigs Jetty. The channel is marked to a point about 2.5 miles below Derby and Shelton.

(339) **Stratford** is a town on the west side of the river 2.3 miles above the entrance. The principal wharf has a depth of about 9 feet at its end. The **harbormaster** at Stratford controls anchorages and moorings.

Harbor regulations may be obtained from the harbormaster who may be contacted through the Stratford police or at the Town Hall.

(340) Stratford has several small-craft facilities.

(341) **Devon** is on the east side about 1 mile above Stratford. Local small craft anchor near the east bank of the river, just north of the highway bridge, in depths up to 10 feet. A 40-foot marine railway at a small-craft facility at Devon can haul out craft for engine and hull repairs; gasoline, water, ice, marine supplies, and storage are available. In July 1981, depths of 4 feet were reported alongside the facility.

(342) **Shelton**, a town on the west side of the river about 11.5 miles above the entrance is connected to **Derby** by two bridges; the town has several important factories. In 1971, the wharves at Derby and Shelton were in ruins and unsuitable for craft of any size.

# Table of Selected Chart Notes

**PLANE COORDINATE GRID**  
(based on NAD 1927)  
Connecticut State Grid is indicated by dotted ticks at 5,000 foot intervals.


Corrected through NM Dec. 2/06  
Corrected through LNM Nov. 21/06

**HEIGHTS**  
Heights in feet above Mean High Water.

**Mercator Projection**  
Scale 1:20,000 at Lat. 41°12'  
**North American Datum of 1983**  
(World Geodetic System 1984)  
**SOUNDINGS IN FEET**  
AT MEAN LOWER LOW WATER

**RACING BUOYS**  
Racing buoys within the limits of this chart are not shown hereon. Information may be obtained from the U.S. Coast Guard District Offices as racing and other private buoys are not all listed in the U.S. Coast Guard Light List.

**AIDS TO NAVIGATION**  
Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

**CAUTION**  
**SUBMARINE PIPELINES AND CABLES**  
Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:  
  
Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.  
Covered wells may be marked by lighted or unlighted buoys.

**RADAR REFLECTORS**  
Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

**CAUTION**  
Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.  
During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.


**POLLUTION REPORTS**  
Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

**HORIZONTAL DATUM**  
The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.347" northward and 1.616" eastward to agree with this chart.

**SUPPLEMENTAL INFORMATION**  
Consult U.S. Coast Pilot 2 for important supplemental information.

**CAUTION**  
**BASCULE BRIDGE CLEARANCES**  
For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.

**AUTHORITIES**  
Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

**CAUTION**  
Mariners are warned to stay clear of the protective riprap surrounding navigational light structures shown thus: 

**NOAA WEATHER RADIO BROADCASTS**  
The NOAA Weather Radio stations listed below provide continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.  

Meriden, CT	WXJ-42	162.40 MHz
New York, NY	KWO-35	162.55 MHz
Riverhead, NY	WXM-80	162.475 MHz

**WARNING**  
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

**NOTE Z**  
**NO-DISCHARGE ZONE, 40 CFR 140**  
This chart falls entirely within the limits of a No-Discharge Zone (NDZ). Under the Clean Water Act, Section 312, all vessels operating within a No-Discharge Zone (NDZ) are completely prohibited from discharging any sewage, treated or untreated, into the waters. All vessels with an installed marine sanitation device (MSD) that are navigating, moored, anchored, or docked within a NDZ must have the MSD disabled to prevent the overboard discharge of sewage (treated or untreated) or install a holding tank. Regulations for the NDZ are contained in the U.S. Coast Pilot. Additional information concerning the regulations and requirements may be obtained from the Environmental Protection Agency (EPA) web site: [http://www.epa.gov/owow/oceans/regulatory/vessel\\_sewage/](http://www.epa.gov/owow/oceans/regulatory/vessel_sewage/).

**NOTE A**  
Navigation regulations are published in Chapter 2, U.S. Coast Pilot 2. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 1st Coast Guard District in Boston, MA or at the Office of the District Engineer, Corps of Engineers in Concord, MA.  
Refer to charted regulation section numbers.

Additional information can be obtained at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov).

**SOURCE DIAGRAM**  
The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

**CAUTION**  
This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov).

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

TIDAL INFORMATION				
PLACE		Height referred to datum of soundings (MLLW)		
NAME	(LAT/LONG)	Mean Higher High Water	Mean High Water	Mean Low Water
Milford Harbor	(41°13'N/073°03'W)	feet 7.2	feet 6.8	feet 0.2
Stratford	(41°11'N/073°07'W)	6.0	5.7	0.2
Shelton	(41°19'N/073°05'W)	5.4	5.2	0.2
Dashes (---) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from <a href="http://tidesandcurrents.noaa.gov">http://tidesandcurrents.noaa.gov</a> . (Jan 2005)				

**ABBREVIATIONS** (For complete list of Symbols and Abbreviations, see Chart No. 1.)  
Aids to Navigation (lights are white unless otherwise indicated):  


AERO aeronautical	G green	Mo morse code	R TR radio tower
Al alternating	IQ interrupted quick	N nun	Rot rotating
B black	Iso isophase	OBSC obscured	s seconds
Bn beacon	LT HO lighthouse	Oc occulting	SEC sector
C can	M nautical mile	Or orange	St M statute miles
DIA diaphone	m minutes	Q quick	VQ very quick
F fixed	MICRO TR microwave tower	R red	W white
Fl flashing	Mkr marker	Ra Ref radar reflector	WHIS whistle
		R Bn radiobeacon	Y yellow

  
Bottom characteristics:  

Blds boulders	Co coral	gy gray	Oys oysters	so soft
bk broken	G gravel	h hard	Rk rock	Sh shells
Cy clay	Grs grass	M mud	S sand	sy sticky

  
Miscellaneous:  

AUTH authorized	Obstr obstruction	PD position doubtful	Subm submerged
ED existence doubtful	PA position approximate	Rep reported	

  
 Wreck, rock, obstruction, or shoal swept clear to the depth indicated.  
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.



# SOUNDINGS IN FEET

12370

**WARNING**  
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/C&S2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

Formerly C&GS 219



UNITED STATES - EAST COAST  
CONNECTICUT

## NORTH SHORE OF LONG ISLAND SOUND

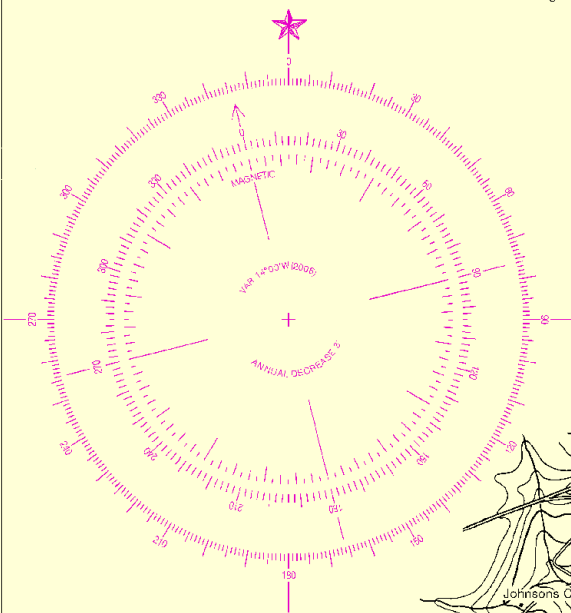
HOUSATONIC RIVER  
AND MILFORD HARBOR

Mercator Projection  
Scale 1:20,000 at Lat. 41° 12'

North American Datum of 1983  
(World Geodetic System 1984)

SOUNDINGS IN FEET  
AT MEAN LOWER LOW WATER

Additional information can be obtained at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov).

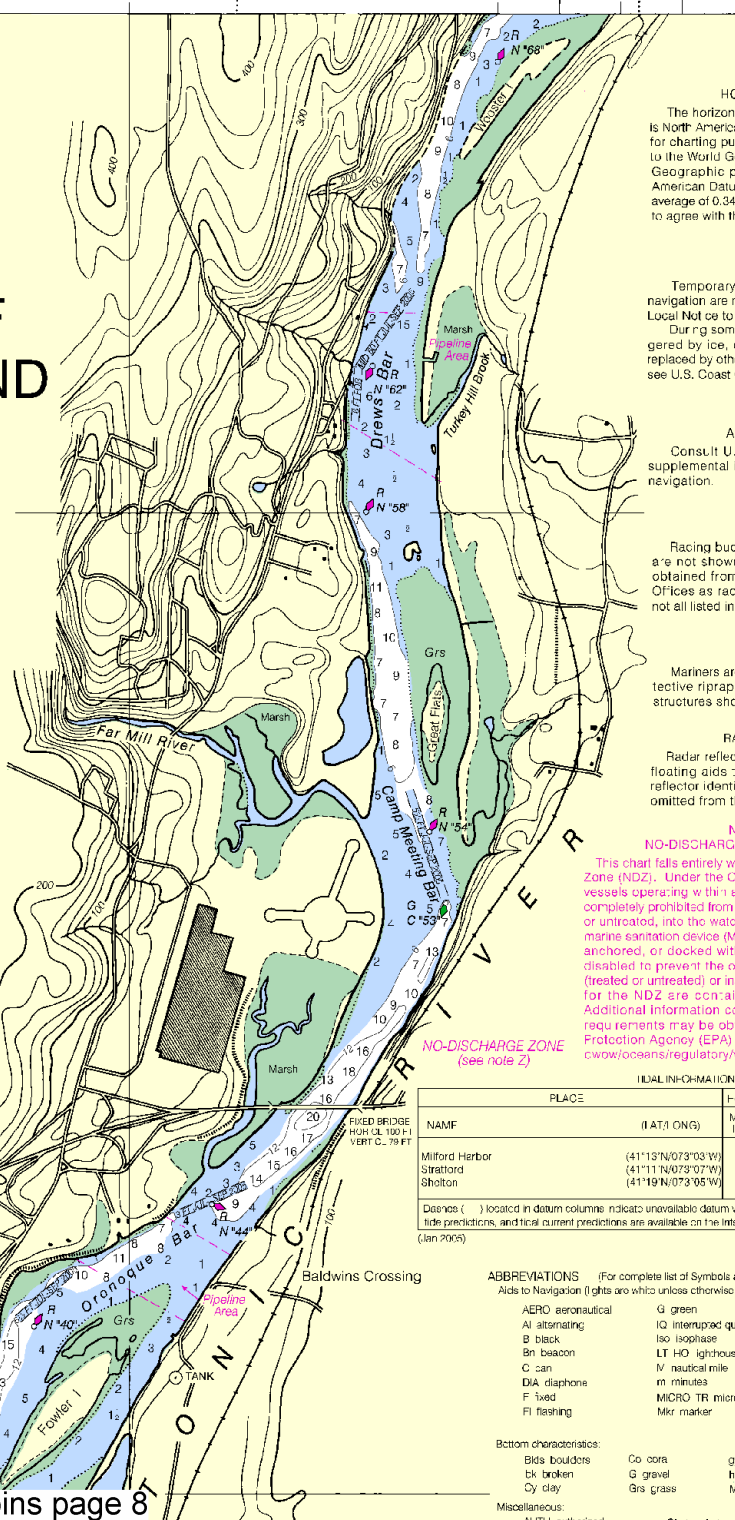


SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

### SOURCE

A	1990-2003	NOS Surveys	full bottom coverage
B1	1950-2001	NOS Surveys	partial bottom coverage
B4	1900-1989	NOS Surveys	partial bottom coverage
B5	Pre 1900	NOS Surveys	partial bottom coverage



HC  
The horizon is North America for charting purposes to the World Geodetic System datum of 1983. The average of 0.34 to agree with the

Temporary navigation are not shown. Local Notice to Mariners is replaced by other see U.S. Coast Pilot.

AI  
Consult U.S. Coast Pilot for supplemental information.

Racing buoys are not shown. Obtained from Office as race not all listed in

Mariners are responsible for structures shown.

R  
Radar reflector floating aids - reflector identification omitted from this

**NO-DISCHARGE ZONE**  
This chart falls entirely within the No-Discharge Zone (NDZ). Under the Clean Water Act, vessels operating within this zone are completely prohibited from discharging, into the water, any oil, hazardous material, or other pollutants. Additional information on requirements may be obtained from the U.S. Environmental Protection Agency (EPA) at [www.epa.gov/334](http://www.epa.gov/334).

### LOCAL INFORMATION

NAME	PLACE	HEIGHT (Feet)
Milford Harbor	(41°13'N/073°03'W)	11
Stratford	(41°11'N/073°07'W)	11
Sholton	(41°19'N/073°05'W)	11

Distances ( ) located in datum column indicate unavailable datum vertical tide predictions, and local current predictions are available on the internet (Jan 2005).

### ABBREVIATIONS

AERO	aeronautical	G	green
AI	alternating	IQ	interrupted quick flashing
B	black	ISO	isophase
Bn	buoy	LT	light tower
C	can	M	nautical mile
DIA	diaphone	m	minutes
F	fixed	MICRO	micro
FI	flashing	MR	marker

Bottom characteristics:			
Blds boulders	Co cora		g
bk broken	G gravel		h
Oy clay	Grs grass		M
Miscellaneous:			

4



Printed at reduced scale.

SCALE 1:20,000  
Nautical Miles

See Note on page 5.



# PRINT-ON-DEMAND CHARTS

NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at 1-800-584-4683, <http://NauticalCharts.gov>, [help@NauticalCharts.gov](mailto:help@NauticalCharts.gov), or [OceanGrafix@noaa.gov](mailto:OceanGrafix@noaa.gov) at 1-877-56CHART, <http://OceanGrafix.com>, or [help@OceanGrafix.com](mailto:help@OceanGrafix.com).

## LOGARITHMIC SPEED SCALE



To find SPEED, place one point of dividers on distance run (in any unit) and the other on minutes run. Without changing divider spread, place right point on 60 and left point will then indicate speed in units per hour. Example: with 4.0 nautical miles run in 15 minutes, the speed is 16.0 knots.

19, 1st Ed., Feb. 1979 C-1919-190 KAPP 2186

21° 17' 73° 04' 50'

## HORIZONTAL DATUM

Horizontal reference datum of this chart is the North American Datum of 1983 (NAD 83), which for purposes is considered equivalent to the Geodetic System 1984 (GWS 84). Positions referred to the North datum of 1927 must be corrected an 347' northward and 1.618' eastward in this chart.

## CAUTION

Be aware of changes or defects in aids to navigation not indicated on this chart. See the latest Notices to Mariners. During winter months or when endangers, certain aids to navigation are removed or their types or removed. For details see the latest Guard Light List.

## AIDS TO NAVIGATION

U.S. Coast Guard Light List for all information concerning aids to navigation.

## RACING BUOYS

Buoys within the limits of this chart are shown hereon. Information may be obtained from the U.S. Coast Guard District Office and other private buoys are shown in the U.S. Coast Guard Light List.

## CAUTION

Boats are warned to stay clear of the propeller area surrounding navigational light shown thus:

## RADAR REFLECTORS

Reflector have been placed on many small navigational aids. Individual radar reflection on these aids has been shown in this chart.

## NOTE 2 NO DISCHARGE ZONE, 40 CFR 140

Within the limits of a No-Discharge Zone (NDZ), the discharge of sewage, treated or untreated, is prohibited. Regulations are in effect for vessels with an installed MSD (MSD) that are navigating, moored, or at anchor. A vessel must have the MSD in operation and discharge of sewage into a holding tank. Regulations are in effect for the U.S. Coast Guard, concerning the regulations and obtained from the Environmental Protection Agency website: [http://www.epa.gov/vessel\\_sewage/](http://www.epa.gov/vessel_sewage/)

## TIDE

Height referred to datum of soundings (MLLW)			
Mean High Water	Mean High Water	Mean Low Water	
feet	feet	feet	
7.2	6.8	0.2	
6.3	5.7	0.2	
5.4	5.2	0.2	

Values for a tide station. Real time water levels, internet from <http://tidesandcurrents.noaa.gov>.

Units and Abbreviations, see Chart No. 1 (as indicated):

quick	Mo mosaic code	R TR radio tower
	N run	Rot rotating
use	OBSC obscured	s seconds
le	OC consulting	SEC sector
	Or orange	SL M statute miles
lighthouse tower	Q quick	VQ very quick
	P red	W white
	Pa Ref radar reflector	WHB whistle
	R Bn radio beacon	Y yellow

OY OY	Oyster oysters	so soft
Rk rock	Rk rock	Sh shells
M mud	S sand	sy story

**AUTHORITIES**  
Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey and U.S. Coast Guard.

**PLANE COORDINATE GRID**  
(based on NAD 1927)  
Connecticut State Grid is indicated by dotted ticks at 5,000 foot intervals.

**CAUTION**  
**BASCULE BRIDGE CLEARANCES**  
For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.



FATHOMS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
FEET	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102
METERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

Scale 1:20,000 Nautical Miles

Scale 1:20,000 Yards

Scale 1:20,000 Fathoms

Scale 1:20,000 Feet

Scale 1:20,000 Meters

# SOUNDINGS IN FEET

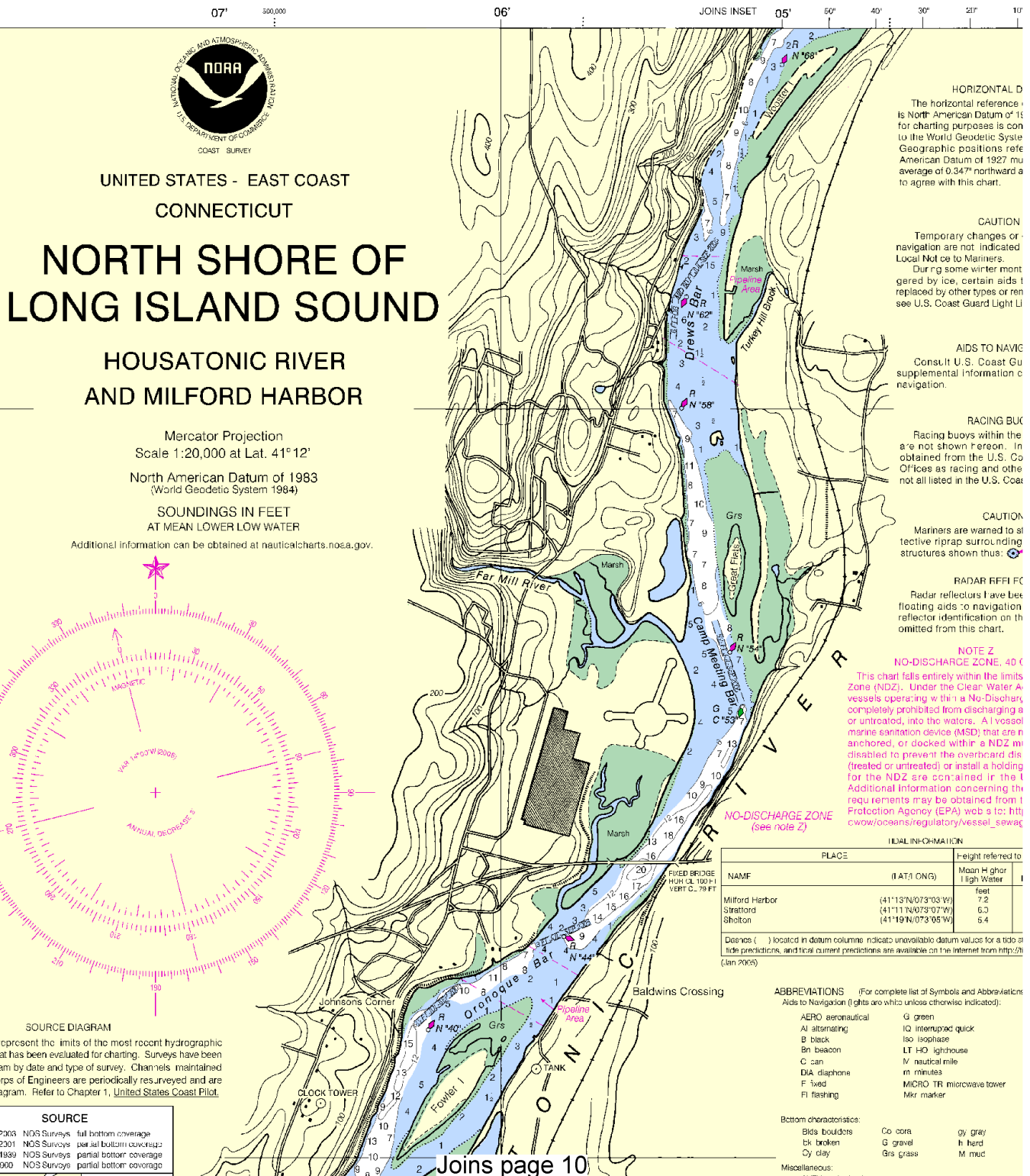
**WARNING**  
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CSD), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

Formerly C&GS 219, 1st Ed., Feb. 1

Joins page 5

6



Printed at reduced scale.

SCALE 1:20,000  
Nautical Miles

See Note on page 5.



North

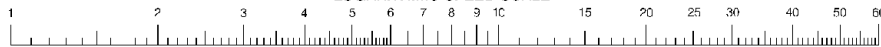
Joins page 10



# PRINT-ON-DEMAND CHARTS

NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at 1-800-584-4683, <http://NauticalCharts.gov>, [help@NauticalCharts.gov](mailto:help@NauticalCharts.gov), or OceanGrafix at 1-877-66CHART, <http://OceanGrafix.com>, or [help@OceanGrafix.com](mailto:help@OceanGrafix.com).

## LOGARITHMIC SPEED SCALE



To find SPEED, place one point of dividers on distance run (in any unit) and the other on minutes run. Without changing divider spread, place right point on 60 and left point will then indicate speed in units per hour. Example: with 4.0 nautical miles run in 15 minutes, the speed is 16.0 knots.

19° 9' C-1919-190 KAPP 2185

117° 73° 04' 50'

**DATUM**  
The datum of this chart is 1983 (NAD 83), which is considered equivalent to 1984 (WGS 84). Referenced to the North must be corrected and 1.618° eastward.

**IN**  
or defects in aids to navigation are removed. For details see List.

**IGATION**  
Guard Light List for 1 concerning aids to navigation.

**UOYS**  
The limits of this chart information may be Coast Guard District or private buoys are Coast Guard Light List.

**ON**  
stay clear of the proposed navigational light.

**FACTORS**  
When placed on many on. Individual radar these aids has been.

**0 CFR 140**  
its of a No-Discharge Act, Section 312, all large Zone (NDZ) are any sewage, treated solids with an installed navigating, moored, must have the MSD discharge of sewage ng tank. Regulations a U.S. Coast Pilot, the regulations and n the Environmental <http://www.cpa.gov/age/>.

to datum of soundings (MLLW)	
Mean High Water	Mean Low Water
feet	feet
6.8	0.2
5.7	0.2
5.2	0.2

o station. Real time water levels, [tidesandcurrents.noaa.gov](http://tidesandcurrents.noaa.gov).

cns, see Chart No. 1.)

Mo mosaic code  
N run  
CESC obscured  
Cc coupling  
Or orange  
Q quick  
R red  
Rd Ref radar reflector  
R Br radiobeacon

R TR radio tower  
Rot rotating  
s seconds  
SEC sector  
Sl M statute miles  
VQ very quick  
W white  
WHIS whistle  
Y yellow

Oys oysters  
Flk rock  
S sand

so soft  
Sh shells  
sy sticky

## CAUTION BASQUE BRIDGE CLEARANCES

For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.

FATHOMS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
FEET	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102
METERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

## AUTHORITIES

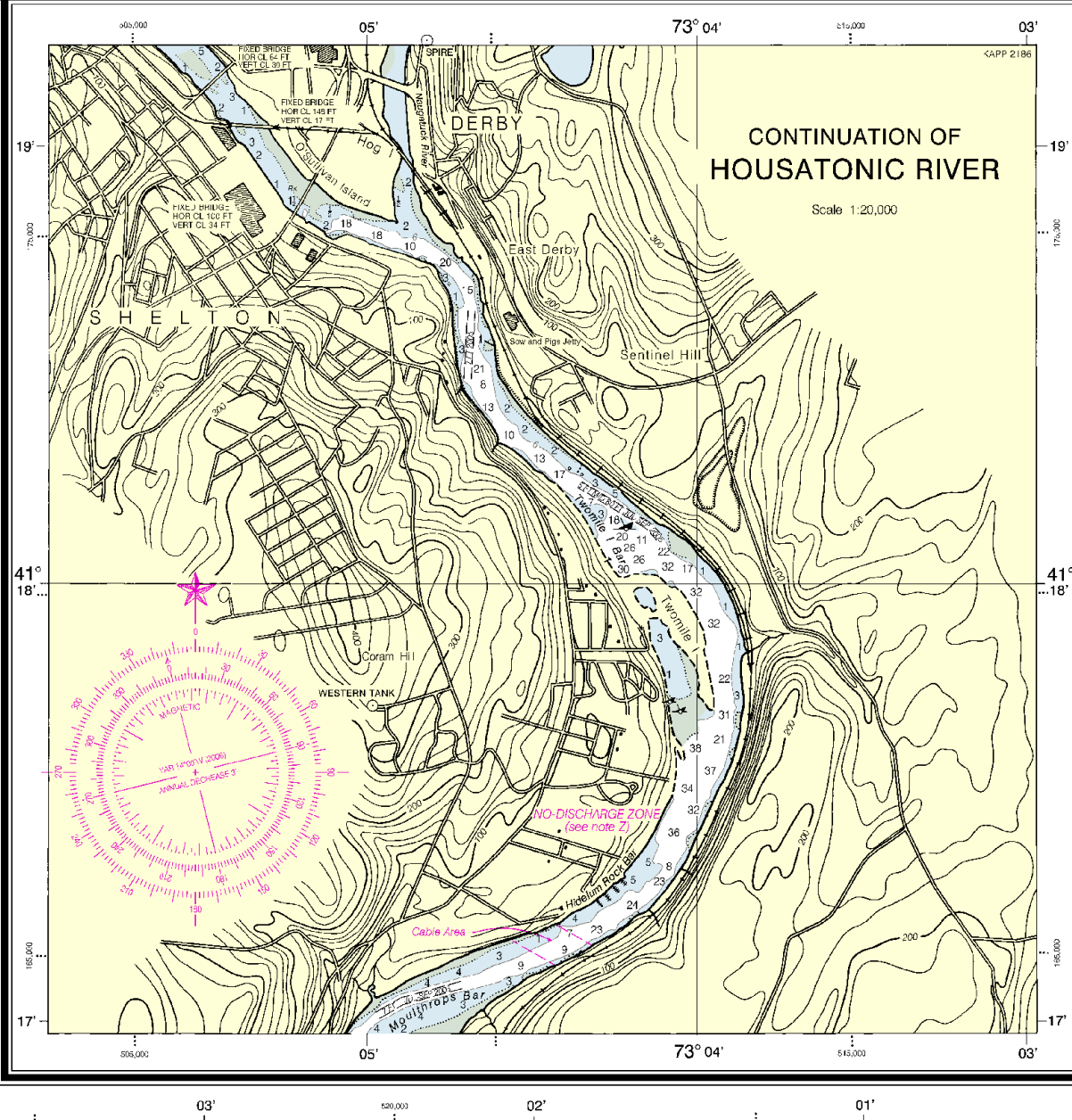
Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

## PLANE COORDINATE GRID (based on NAD 1983)

Coordinate Grid is indicated 5,000 foot intervals

## CONTINUATION OF HOUSATONIC RIVER

Scale 1:20,000



SCALE 1:20,000  
Nautical Miles

Yards  
500 1000 1500 2000 2500

Joins page 11

This BookletChart has been updated with: Coast Guard Local Notice To Mariners: 1010 3/9/2010,  
NGA Weekly Notice to Mariners: 1110 3/13/2010,  
Canadian Coast Guard Notice to Mariners: 0110 1/29/2010.

7

12370

Depicted in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown or this diagram. Refer to Chapter 1, United States Coast Pilot.

Joins page 4

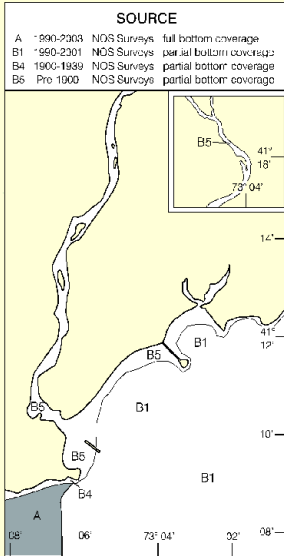
DIA diphane in minutes  
F fixed MICRO TR micro  
FI fishing Mkr marker

Bottom characteristics:  
Bds boulders Co corals  
bk broken G gravel  
Cy clay Gns grass M

Miscellaneous:  
AUTH authorized Obstrn obstruct  
ED distance doubtful PA position ap  
(2) Wreck, rock, obstruction, or shoal swept  
(2) Rocks that cover and uncover, with hel

POLLUTION REPORT:

Report all spills of oil and hazardous materials to the National Response Center at 1-800-424-8802 (toll free), or to the Coast Guard facility if telephone contact is impossible (33 CFR 153).



NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 2. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 1st Coast Guard District in Boston, MA or at the Office of the District Engineer, Corps of Engineers in Concord, MA.  
Refer to charted regulation section numbers.

HOUSATONIC RIVER CHANNEL DEPTHS  
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF FEB 2006

NAME OF CHANNEL	CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)			DATE OF SURVEY	PROJECT C
	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER		
ENTRANCE CHANNEL	11.0	11.3	11.3	2,3-05,2-06	200 1.0
THENCE TO BUOY 19	15.6	12.8	8.8	2,3-05	A 200-250 1.5
THENCE TO BASCULE BRIDGE	2.5	2.7	8.8	2,3-05	A 200-250 .8
IN 41°12'01.3"N, 73°06'38.4"W.	7.7	9.6	9.1	2,3-05	A 200-370 .9
THENCE TO BUOY 29					

A, EXCEPT FOR NARROWING AT BRIDGES.  
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION.

CAUTION

**SUBMARINE PIPELINES AND CABLE**  
Charted submarine pipelines and submarine cables and submarine pipeline and cable are shown as:

Pipeline Area Cable Area

Additional uncharted submarine pipeline cables may exist within the area of this chart. Not all submarine pipelines are marine cables. Those that were originally buried may become exposed. Mariners should use caution when operating vessels in deep water comparable to their draft in areas pipelines and cables may exist, and anchoring, cragging, or trawling.  
Covered walls may be marked by light unlighted buoys.

Joins page 12

8



Printed at reduced scale.

SCALE 1:20,000  
Nautical Miles

See Note on page 5.

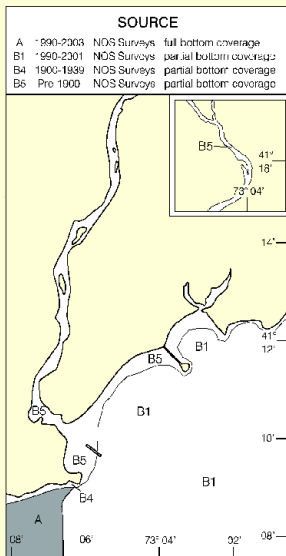






Based in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

Joins page 6



DIA diaphone  
F fixed  
FI flashing

m minutes  
MICRO TR microwave tower  
Mkr marker

Bottom characteristics:  
Bls boulders  
bk broken  
Cy clay  
Gy gravel  
Gr grass

Miscellaneous:  
AUTH authorized  
ED ex-stones doubtful  
(2) Wreck, rock, obstruction, or shoal swept clear to the d  
(2) Rocks that cover and uncover, with heights in feet abo

Obstr obstruction  
PA post on approximate

**POLLUTION REPORTS**

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

HOUSATONIC RIVER CHANNEL DEPTHS							
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF FEB 2008							
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (MILES)	DEPTH MLLW (FEET)
ENTRANCE CHANNEL	11.0	11.3	11.3	2,3-05-2-08	200	1.08	18
THENCE TO BUOY 19	15.6	12.8	8.8	2,3-05	A 200-250	1.56	18
THENCE TO BASCULE BRIDGE							
IN 41°12'01.3", 73°06'38.4"W	2.5	2.7	8.8	2,3-05	A 200-250	.80	18
THENCE TO BUOY 29	7.7	9.6	9.1	2,3-05	A 200-270	.90	18
A. EXCEPT FOR NARROWING AT BRIDGES.							
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION							

A. EXCEPT FOR NARROWING AT BRIDGES.  
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION.

**NOTE A**

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 2. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 1st Coast Guard District in Boston, MA or at the Office of the District Engineer, Corps of Engineers in Concord, MA.  
Refer to charted regulation section numbers.

**CAUTION**  
**SUBMARINE PIPELINES AND CABLES**  
Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:  
Pipeline Area  
Cable Area  
Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, cragging, or trawling.  
Covered wells may be marked by lighted or unlighted buoys.

Joins page 9

Joins page 14

10



Printed at reduced scale.

SCALE 1:20,000  
Nautical Miles

See Note on page 5.





Q quick  
R red  
Ra Ref radar reflector  
R Br radiobeacon

VQ very quick  
W white  
WHIS whistle  
Y yellow

Oys oysters  
Rk rock  
S sand

so soft  
Sh shells  
sy sticky

PD position doubtful  
Rep reported  
+ depth indicated  
above datum of soundings.

Subm submerged

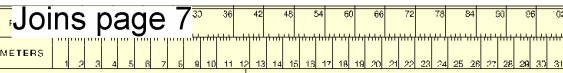
For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.

**AUTHORITIES**  
Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey and U.S. Coast Guard.

**CAUTION**  
Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

**SUPPLEMENTAL INFORMATION**  
Consult U.S. Coast Pilot 2 for important supplemental information.

**HEIGHTS**  
Heights in feet above Mean High Water.

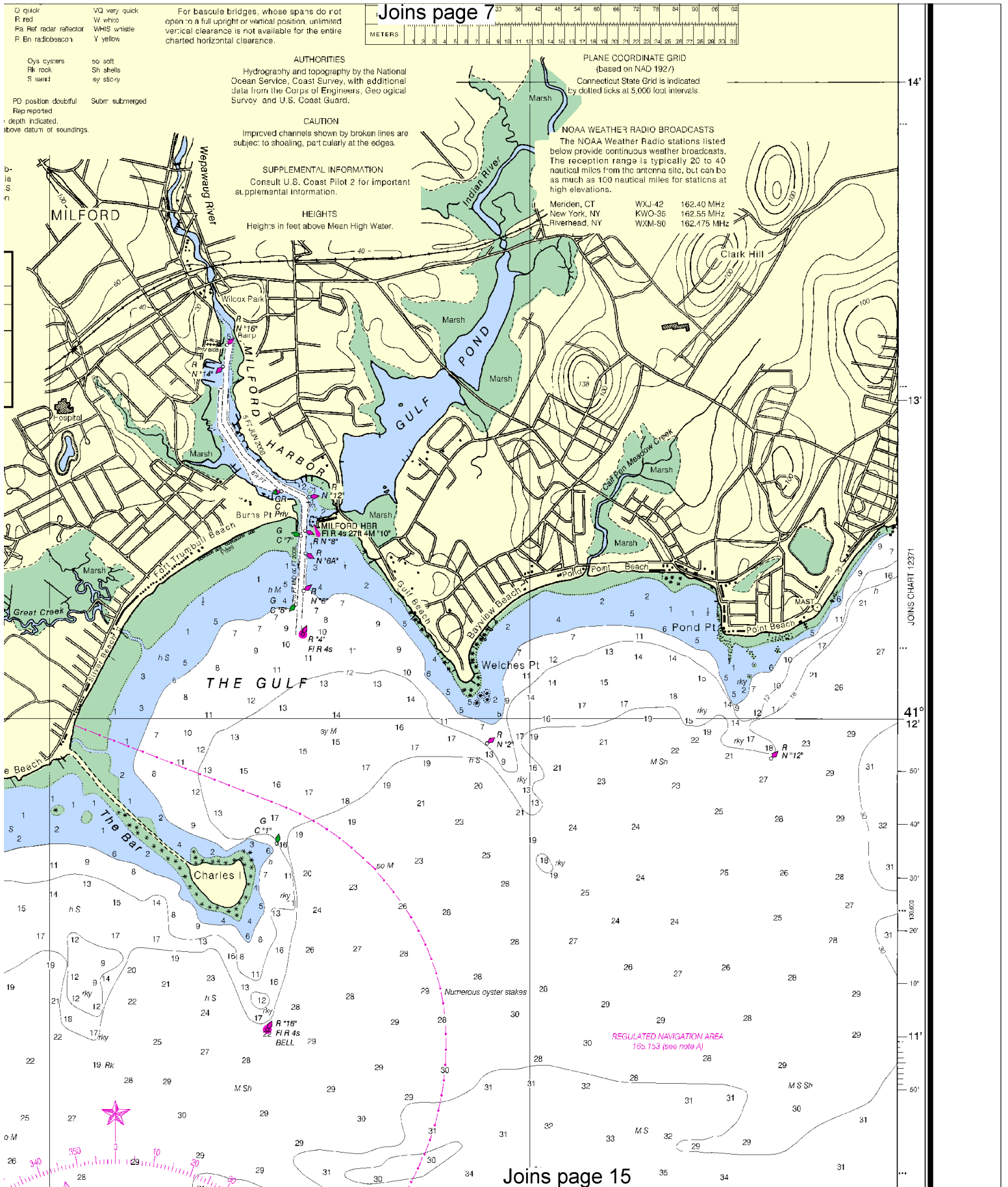


**PLANE COORDINATE GRID**  
(based on NAD 1927)  
Connecticut State Grid is indicated by dotted ticks at 5,000 foot intervals

**NOAA WEATHER RADIO BROADCASTS**  
The NOAA Weather Radio stations listed below provide continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

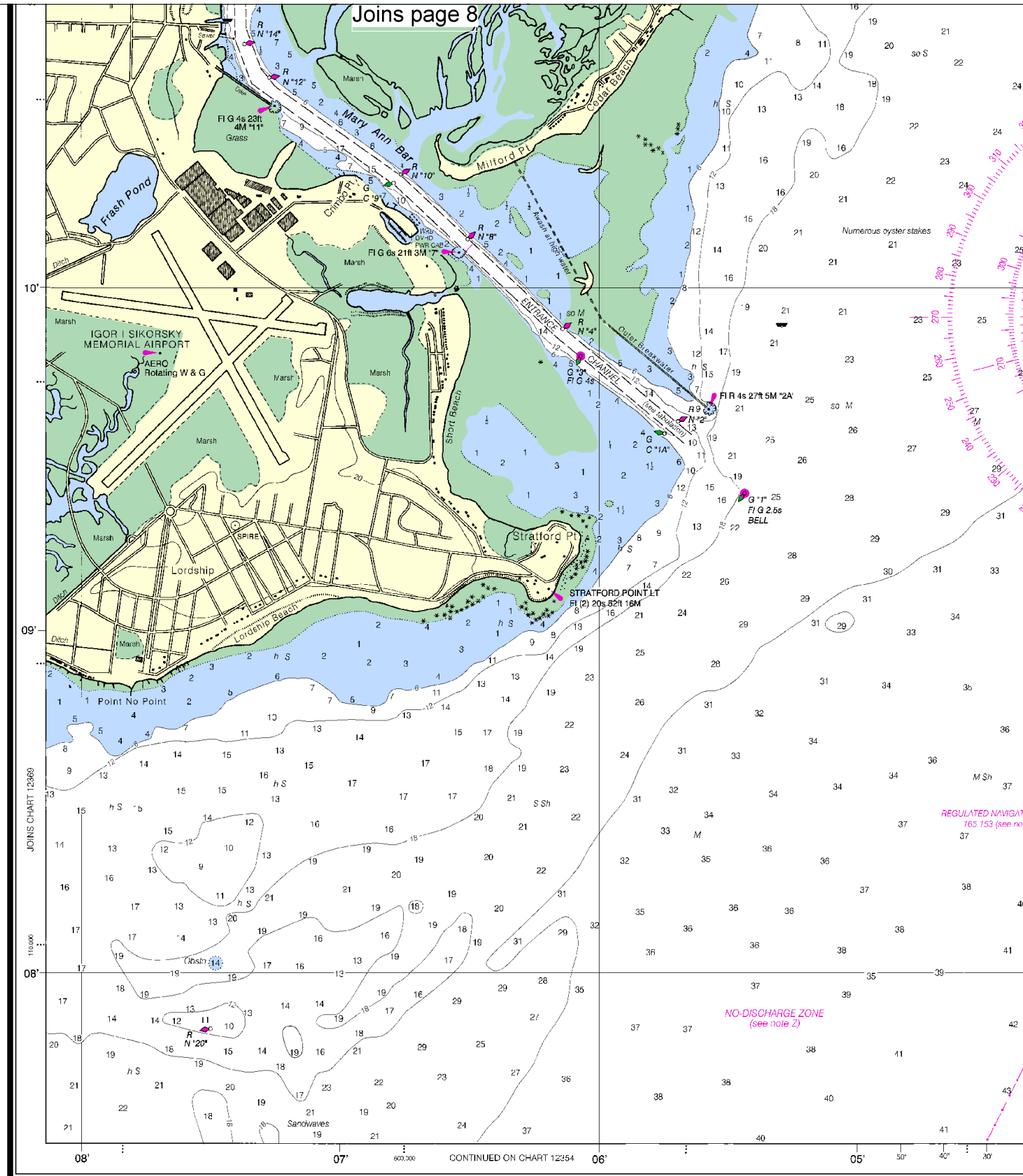
Meriden, CT WXJ-42 162.40 MHz  
New York, NY KWO-35 162.55 MHz  
Riverside, NY WXM-80 162.475 MHz

b  
a  
s  
n



Joins page 15

Joins page 8



20th Ed., Dec. / 06 ■ Corrected through NM Dec. 2/06  
Corrected through LNM Nov. 21/06

12370

**CAUTION**  
This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov).

Published at  
U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL COAST GUARD

12



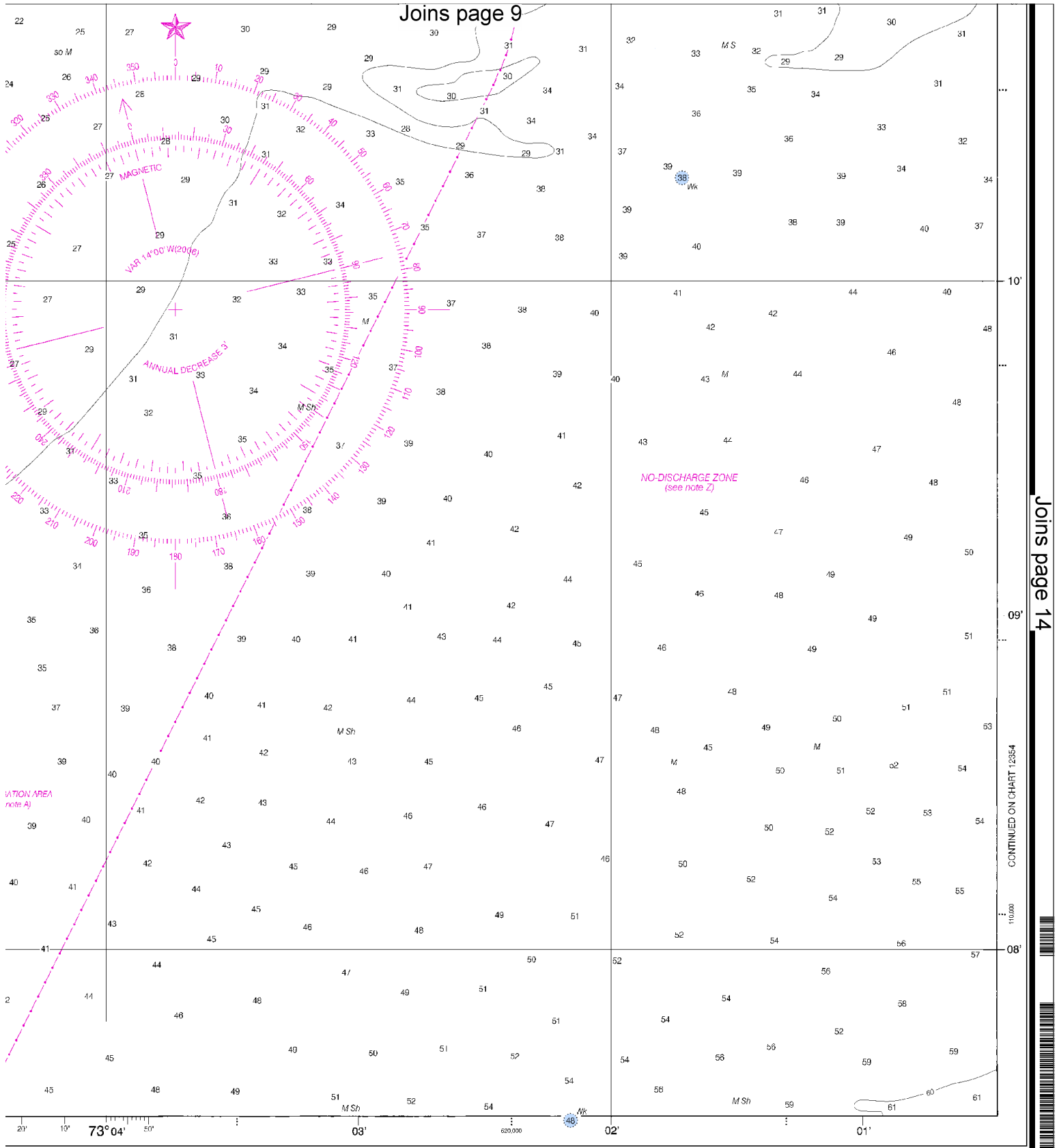
Printed at reduced scale.

SCALE 1:20,000  
Nautical Miles

See Note on page 5.







at Washington, D.C.  
MENT OF COMMERCE  
ATMOSPHERIC ADMINISTRATION  
- OCEAN SERVICE  
AST SURVEY

## Housatonic River and Milford Harbor

SOUNDINGS IN FEET - SCALE 1:20,000

# 12370

## SOUNDINGS IN FEET

# 13

Joins page 10

Joins page 13

JOINS CHART 12330

20th Ed., Dec. / 06 ■ Corrected through NM Dec. 2/06  
Corrected through LNM Nov. 21/05

12370

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov).

Published at Washington  
U.S. DEPARTMENT OF CO  
NATIONAL OCEANIC AND ATMOSPHER  
NATIONAL OCEAN SER  
COAST SURVEY

14



Printed at reduced scale.

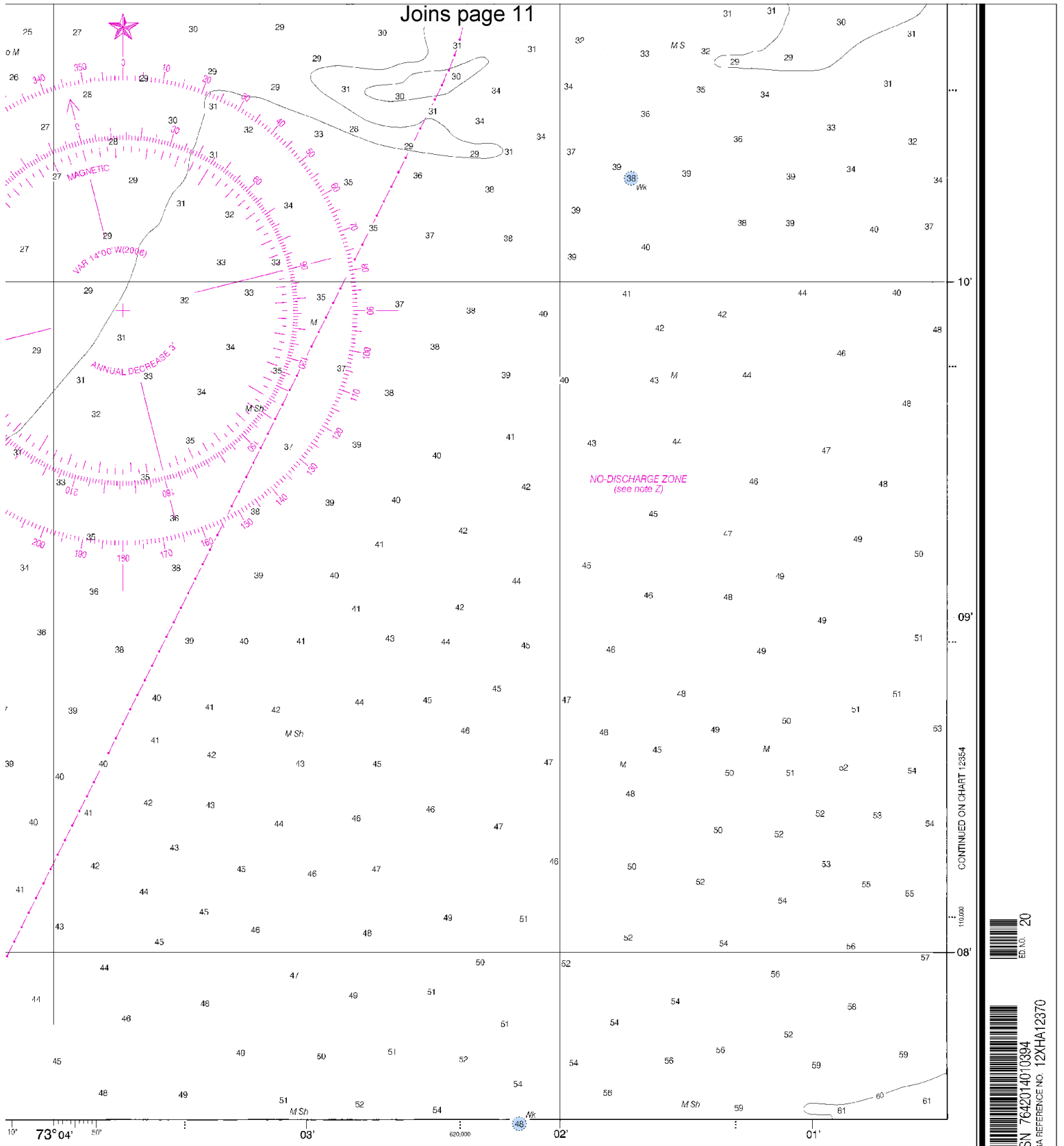
SCALE 1:20,000  
Nautical Miles

See Note on page 5.





Joins page 11



on, D.C.  
COMMERCE  
ERIC ADMINISTRATION  
ERVICE  
(

Housatonic River and Milford Harbor

SOUNDINGS IN FEET - SCALE 1:20,000

12370

SOUNDINGS IN FEET

15

CONTINUED ON CHART 12354

ED. NO. 20

NSN 7642014010394  
NGA REFERENCE NO. 12XHA12370

## EMERGENCY INFORMATION

### VHF Marine Radio channels for use on the waterways:

**Channel 6** – Inter-ship safety communications.

**Channel 9** – Communications between boats and ship-to-coast.

**Channel 13** – Navigation purposes at bridges, locks, and harbors.

**Channel 16 – Emergency, distress and safety calls** to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.

**Channel 22A** – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

**Channels 68, 69, 71, 72 & 78A** – Recreational boat channels.

### Distress Call Procedures

1. Make sure radio is on.
2. Select Channel 16.
3. Press/Hold the transmit button.
4. Clearly say: "MAYDAY, MAYDAY, MAYDAY."
5. Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
6. Release transmit button.
7. Wait for 10 seconds – If no response Repeat MAYDAY Call.

### **HAVE ALL PERSONS PUT ON LIFE JACKETS !!**

**Mobile Phones** – Call 911 for water rescue.

**Coast Guard Group MSO LI Sound** – 203-468-4404

**Coast Guard New Haven** – 203-468-4401

**Environmental Protection Spec** – 203-468-4520

**Coast Guard Atlantic Area Cmd** – 757-398-6390

**NOAA Weather Radio** – 162.400 MHz, 162.425 MHz, 162.450 MHz, 162.475 MHz, 162.500 MHz, 162.525 MHz, 162.550 MHz.

**Getting and Giving Help** – Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.



## NOAA CHARTING PUBLICATIONS

**Official NOAA Nautical Charts** – NOAA surveys and charts the national and territorial waters of the U.S, including the Great Lakes. We produce over 1,000 traditional nautical charts covering 3.4 million square nautical miles. Carriage of official NOAA charts is mandatory on the commercial ships that carry our commerce. They are used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters. NOAA charts are available from official chart agents listed at: [www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov).

**Official Print-on-Demand Nautical Charts** – These full-scale NOAA charts are updated weekly by NOAA for all Notice to Mariner corrections. They have additional information added in the margin to supplement the chart. Print-on-Demand charts meet all federal chart carriage regulations for charts and updating. Produced under a public/private partnership between NOAA and OceanGrafix, LLC, suppliers of these premium charts are listed at [www.OceanGrafix.com](http://www.OceanGrafix.com).

**Official Electronic Navigational Charts (NOAA ENC<sup>®</sup>)** – ENCs are digital files of each chart's features and their attributes for use in computer-based navigation systems. ENCs comply with standards of the International Hydrographic Organization. ENCs and their updates are available for free from NOAA at [www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov).

**Official Raster Navigational Charts (NOAA RNC<sup>™</sup>)** – RNCs are geo-referenced digital pictures of NOAA's charts that are suitable for use in computer-based navigation systems. RNCs comply with standards of the International Hydrographic Organization. RNCs and their updates are available for free from NOAA at [www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov).

**Official BookletCharts<sup>™</sup>** – BookletCharts<sup>™</sup> are reduced scale NOAA charts organized in page-sized pieces. The "Home Edition" can be downloaded from NOAA for free and printed. The Internet address is [www.NauticalCharts.gov/bookletcharts](http://www.NauticalCharts.gov/bookletcharts).

**Official PocketCharts<sup>™</sup>** – PocketCharts<sup>™</sup> are for beginning recreational boaters to use for planning and locating, but not for real navigation. Measuring a convenient 13" by 19", they have a 1/3 scale chart on one side, and safety, boating, and educational information on the reverse. They can be purchased at retail outlets and on the Internet.

**Official U.S. Coast Pilot<sup>®</sup>** – The Coast Pilots are 9 text volumes containing information important to navigators such as channel descriptions, port facilities, anchorages, bridge and cable clearances, currents, prominent features, weather, dangers, and Federal Regulations. They supplement the charts and are available from NOAA chart agents or may be downloaded for free at [www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov).

**Official On-Line Chart Viewer** – All NOAA nautical charts are viewable here on-line using any Internet browser. Each chart is up-to-date with the most recent Notices to Mariners. Use these on-line charts as a ready reference or planning tool. The Internet address is [www.NauticalCharts.gov/viewer](http://www.NauticalCharts.gov/viewer).

**Official Nautical Chart Catalogs** – Large format, regional catalogs are available for free from official chart agents. Page size, state catalogs are posted on the Internet and can be printed at home for free. Go to <http://NauticalCharts.NOAA.gov/mcd/ccatalogs.htm>.

**Internet Sites:** [www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov), [www.NOAA.gov](http://www.NOAA.gov), [www.TidesandCurrents.NOAA.gov](http://www.TidesandCurrents.NOAA.gov), [www.NOS.NOAA.gov](http://www.NOS.NOAA.gov).